

IMPROVED LINE CURRENT DIFFERENTIAL PROTECTIVE RELAYING METHOD AND RELAY FOR IN-ZONE TAPPED TRANSFORMERS

ABSTRACT OF THE DISCLOSURE

Sub
A3
5 A line current differential protective relay and method for protecting transmission lines with power transformers tapped between the substations without any measurements taken at the tap point. The protection method uses distance supervision by an overreaching instantaneous impedance zone to prevent malfunction of the relay during external faults at the distribution busbar of the tapped transformer. The protection method uses a modified current differential principle that compares the zero sequence compensated differential and restraining signals to ensure relay stability on external ground faults. The protection method combines both the traditional and modified current
10 differential principles to ensure phase-selective operation.